

Claims

1. A system for communicating reply data with a communication unit comprising:

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a communication server, in communication with the communication unit, comprising a data transfer manager operable for receiving an optimized reply comprising a first data unit identifier and further data, forming a replica reply from the further data and a first data unit corresponding to the first data unit identifier, and forwarding the replica reply.

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2. The system of claim 1, further comprising:

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a host server, in communication with the communication server, comprising a store for storing the first data unit and being operable for, in response to a request for the first data unit by the communication server, forwarding the first data unit to the communication server.

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3. The system of claim 2, wherein the store comprises a mailbox of a user associated with the communication unit, the first data unit is a first email sent to the communication unit and having an associated first data identifier, the reply data is a reply email of the communication unit, the further data comprises a delta between the first email and the reply email, and the replica reply is a replica of the reply email.

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4. The system of claim 2, wherein the store comprises a client-server program file memory, the first data unit is a first file version sent to the communication unit and having an associated first data identifier, the reply data is a revised file version generated by a user associated with the communication unit, the further data comprises a delta between the first file version and the revised file version, and the replica reply is a replica of the revised file version.

5. The system of claim 2, wherein the host server is a host client-server program operating on a host processor, and the host processor is in communication with the communication server via a wide area network (WAN) communication channel.

6. The system of claim 2, wherein the communication server and communication unit are coupled by a first communication channel including a wireless communication channel.

7. The system of claim 2, wherein the data transfer manager further comprises a virtual session manager adapted to control communication of data between the communication unit and host server by communicating the data via a sessionless-oriented communication protocol over a first communication channel between the virtual session manager and the communication unit, and by communicating the data via a session-oriented communication protocol between the virtual session manager and the host server.

8. A method for communicating reply data between a communication unit and a communication server, comprising:

5 (a) at the communication server, receiving an optimized reply comprising a first data unit identifier and further data, forming a replica reply from the further data and a first data unit corresponding to the first data unit identifier, and forwarding the replica reply.

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9. The method of claim 8, further comprising:

(b) at a host server, in communication with the communication server and storing the first data unit, forwarding the first data unit to the communication server in response to a request for the first data unit by the communication server.

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10. A method for communicating reply data between a communication unit and a communication server, comprising:

5 (a) at the communication server:

(a)(i) receiving the reply data;

(a)(ii) determining a first data unit forming a portion of
10 the reply data and determining a first data unit identifier corresponding to the first data unit;

(a)(iii) determining a delta between the first data unit
15 and the reply data, and forming an optimized reply comprising the first data unit identifier and delta; and

(a)(iv) sending the optimized reply to the communication
unit.

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11. The method of claim 10, further comprising:
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(b) at the communication unit, receiving the optimized reply, and forming a replica reply, corresponding to the reply data, from the delta and the first data unit.

25 12. The method of claim 11, wherein the communication server comprises a summary index including plural data unit identifiers corresponding to plural data units stored at the communication unit, and step (a)(ii) further comprises
30 determining based on the summary index whether the first data unit forming a portion of the reply data is one of the plural data units stored at the communication unit.

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1/3. A controller of a communication unit adapted for communicating a reply message, the controller comprising:

5 a data store for storing a first message and a first message identifier received by the communication unit; and

10 a data transfer manager for determining a delta between a reply message including at least a portion of the first message and the first message, forming an optimized reply message comprising the delta and the first message identifier, and sending the optimized reply to a communications server adapted for forming a replica of the reply message from the optimized reply and a copy of the first message.

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15 1/4. The controller of claim ⁷1/3, wherein the data store is further adapted for storing a second message and a second message identifier sent by the communication unit, and the data transfer manager is further operable for receiving a second optimized reply to the second message including the
20 second message identifier and a second delta, and forming a replica of a reply to the second message from the second delta and the second message.

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25 1/5. The controller of claim ¹²⁸1/4 wherein the data transfer manager is an email manager and the first and second messages are first and second email messages.

16. A communication server adapted for communicating with a host server and a communication unit, the communications server comprising:

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a data transfer manager operable for receiving an optimized reply, corresponding to a first reply, from the communication unit comprising a first data unit identifier and a delta, and forming a replica of the first reply from the delta and a first data unit corresponding to the first data unit identifier.

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17. The communication server of claim 16, wherein the data transfer manager is further operable for requesting the first data unit from the host server, and upon receiving the first data unit from the host server forming the replica of the first reply and forwarding the replica to the host server.

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18. The communication server of claim 17, wherein the host server is an electronic messaging post office and the data transfer manager is a electronic messaging manager.

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19. The communication server of claim 16, wherein the data transfer manager is further operable for receiving a further reply, determining a second data unit forming a portion of the further reply and determining a second data unit identifier corresponding to the second data unit, determining a delta between the second data unit and the further reply, forming a further optimized reply comprising the first data unit identifier and delta, and sending the further optimized reply to the communication unit.

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20. The communication server of claim 19, wherein the data transfer manager further comprises a summary store for storing plural data unit identifiers corresponding to plural data units stored at the communication unit, and the data transfer manager is further operable for determining from the summary store whether the second data unit forming a portion of the further reply is one of the plural data units stored at the communication unit.

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21. The communication server of claim 16 wherein the data transfer manager further comprises a virtual session manager adapted to control communication of data between the communication unit and host server by communicating the data via a sessionless-oriented communication protocol over a first communication channel between the virtual session manager and the communication unit, and by communicating the data via a session-oriented communication protocol between the virtual session manager and the host server.